

INDEPENDENT ADVISORY
PANEL FOR UNDERGROUND
MINING

SUPPLEMENTARY ADVICE RE:

METROPOLITAN MINE

LONGWALLS 308 - 310

EXTRACTION PLAN

November 2022

SUPPLEMENTARY ADVICE

In September 2022, the Independent Advisory Panel for Underground Mining (the ‘Panel’) provided a range of advice to the NSW Department of Planning and Environment in relation to the Extraction Plan for Longwalls 308 to 310 at Metropolitan Coal Mine. This included a recommendation that:

notwithstanding any in-principle endorsement of the Extraction Plan for LW308 to LW310, extraction of these panels should not commence until the Woronora Impact Strategy Review Panel confirms that geological structures have not acted as conduits for abnormal or higher than predicted water inflow to mine workings from Woronora Reservoir following the extraction of LWs 305, 306 and 307.

The advice of the Woronora Impact Strategy Review Panel (WISR) was provided through B. K. Hebblewhite Consulting on 2 November 2022. This advice had regard to information not in the Panel’s possession, prompting the Panel to seek some of this information and to raise further queries and points for clarification.

The WISR advice noted that fault F0009, which traverses LW309 and Woronora Reservoir footprints, is not yet undermined. The additional information provided to the Panel (Golder Associates 2020, Borehole Technical 2020EX02 Factual Report and responses to Panel queries emailed on 11 November 2022) notes the low hydraulic conductivity at the intersection of F0009 and 2020EX02 and also that F0009 does not connect to the reservoir; and therefore clarifies and supports the view of B K Hebblewhite Consulting that “*it is considered unlikely that Fault F0009 will act as a conduit for abnormal or higher than predicted water inflow to mine workings from the Woronora Reservoir*”.

The Panel notes for future reference that the monitoring well installed above LW305 only extended a short distance below the predicted height of fracturing and was not able to conclusively show depressurisation corresponding to connected fracturing to the predicted heights from use of the Tammetta and Ditton equations. The wording in the WISR advice that “*no definitive water loss that would conclusively confirm connective fracturing*” suggests that the assessment was based on drill water losses. This would normally require significant flow losses to occur to be observable (and there is no prior expectation that this would be likely to occur). Time permitting in future, a better approach would be to wait until VWP measurements become available and to report those as the basis for assessing connected fracturing. The description of the pressure changes since VWP installation is limited to the Hawkesbury sandstone and is not particularly relevant at this early stage to the observation of connected fracturing.

Notwithstanding the previous comment, the evidence suggests that there is little likelihood of excess inflows to the mine from the reservoir. The Panel notes that at the time of preparing the WISR advice, extraction of LW307 was ongoing. Subject to conditions not changing prior to the completion of LW307, the Panel (being constituted by the same members who prepared the September 2022 advice¹) is satisfied that its recommendation has been adopted and acted upon.

¹ Em. Prof Jim Galvin (Chair), Prof. Neil McIntyre, Dr Ann Young & Em. Prof Rae Mackay